Westpac New Zealand Limited

Submission to the Reserve Bank of New Zealand on "Capital Review Paper 4: How much capital is enough"

17 May 2019

Mark Weenink
General Manager, Regulatory Affairs,
Corporate Legal Services and General Counsel New Zealand
Westpac New Zealand Limited

1. Background

1.1. This submission to the Reserve Bank of New Zealand (**RBNZ**) is made on behalf of Westpac New Zealand Limited (**WNZL**) in respect of the consultation paper *"Capital Review Paper 4: How much capital is enough?"* (January 2019) (**Consultation Paper**). Westpac's contact for this submission is Mark Weenink (General Manager, Regulatory Affairs, Corporate Legal Services & General Counsel).

2. Executive Summary

2.1. WNZL supports the RBNZ's objective of ensuring that New Zealand banks are well capitalised for the safeguarding of the financial system and the prevention of banking crises. WNZL believes that well-managed and strongly capitalised banks will ensure resilience of the banking system through periods of stress and are key building blocks for a robust New Zealand economy.

2.2. However, WNZL considers that the proposals outlined in the Consultation Paper (**Proposals**) go significantly further than is required to meet these objectives, go well beyond international norms and would create a productivity drag. Given the complexity of the combination of untested inputs and likely wide ranging impact of the Proposals, a comprehensive independent cost-benefit analysis is required.

2.3. In particular, WNZL considers that the Proposals are unnecessarily conservative and, if implemented, will significantly impact the cost and quantity of credit available to New Zealand borrowers.

2.4. WNZL estimates that the cumulative imposition of such high levels of regulatory capital on New Zealand banks will increase the cost to borrowers in New Zealand by more than 100bps (as demonstrated in paragraph 2.8 of Part E), which would equate to an increase of approximately $6,000 to the annual borrowing cost for an average home loan in Auckland (as an example).[1]

2.5. The conservatism in the Proposals is particularly evident in three areas:

a) *Quantum of capital:* The proposal to require banks that the RBNZ designates as systemically important in New Zealand (**D-SIBs**) to hold 16% Tier 1 capital is significantly higher than in comparable international jurisdictions. Further, as is acknowledged by the RBNZ, banks hold an operating buffer above the regulatory minima.[2] Therefore, the practical effect of the Proposals would be to increase the average capital held by D-SIB banks to around 18 percent[3] of risk weighted assets (**RWA**).

b) *Measurement of RWA:* The RBNZ has proposed increasing the risk weightings on New Zealand banks' assets substantially beyond international comparable risk measurements without providing quantitative justification. The effect of this proposal would be to increase the cost to borrowers and to place New Zealand's producers at a disadvantage to international competitors.

c) *Capital instruments:* The impact of the Proposals is further amplified by the "de-recognition" of Additional Tier 1 (**AT1**) hybrid capital. In the absence of eligible securities in New Zealand markets, this capital will require replacement by Common Equity Tier 1 (**CET1**) capital. The effect for WNZL would be to require a further $1.5bn of CET1 capital.

[1] Refer to Table 6 below at paragraph 2.14 of Part E.

[2] Reserve Bank of New Zealand *Capital Review Paper 4: How much capital is enough?* (December 2018).

[3] Including a 2% operating buffer.

2.6. The cumulative impact of the Proposals would be to increase CET1 capital requirements of D-SIB banks from 9.5% to 18%[4]; an increase of 8.5%. This would amount to increased CET1 capital of around $4.5bn for WNZL and more than $25bn across New Zealand banks to meet current lending. In order to fund growth at a rate of 3%[5] over the proposed five-year transition period, WNZL would be required to raise additional CET1 capital of $6.5bn.

2.7. The following Parts A to F set out our submissions in more detail. Specifically, our submissions are:

a) *The risk appetite framework:* the bases of the risk appetite framework adopted in the Proposals are flawed. The effect is to significantly overstate the optimum level of capital to be held by New Zealand banks; (**Part A**)

b) *Risk weightings:* the risk weightings, output floors and scalar adjustment included in the Proposals have been structured with the objective of "levelling the playing field" between internal ratings-based (**IRB**) accredited banks (the four largest banks) and standardised banks (all other banks). Whilst we do not accept that this is part of the RBNZ's statutory mandate, the objective can be achieved in a more efficient manner, substantially lessening the impact on the wider economy; (**Part B**)

c) *Recognition of AT1 capital instruments:* AT1 capital plays a critical role in meeting "going concern" capital needs in a cost-efficient manner while providing New Zealand investors with exposure opportunities to New Zealand banks. AT1 instruments are accepted by other international banking regulators and form a key part in providing efficient capital to banks in comparable jurisdictions. The concerns raised with respect to AT1 capital instruments by the RBNZ are without reasonable foundation and are overstated, and such concerns can be addressed with specific structural arrangements, rather than complete removal of eligibility*;* (**Part C**)

d) *International comparisons:* the level of capital proposed to be held by New Zealand banks substantially exceeds levels held by international banks. The Proposals would require New Zealand banks to hold in excess of double the capital held by international banks, and almost double that held by major Australian banks[6]; (**Part D**)

e) *Impact of the Proposals:* the Consultation Paper significantly underestimates the impact of the Proposals by not giving consideration to the cumulative impact of the various proposed changes. WNZL's estimate of the impact of the Proposals, if implemented, is an increase of capital of $25bn or $2.5bn of additional funding costs across the four major banks. In the absence of a cost-benefit analysis, it is unclear that the economic costs of implementing the proposals are justified; (**Part E**)

f) *Alternate proposal:* our recommendation is that a number of aspects of the Proposals be reconsidered to better achieve the key objectives of the Capital Review, as follows:

i. total capital, rather than CET1, should be the key metric. This would provide efficiency to the bank capital structure and consistency with global bank capital standards, while still meeting the RBNZ objectives associated with well capitalised banks;

ii. in order to accurately assess optimum capital levels, include in the assessment of "*how much capital is enough?*" the operating buffer that banks operate under to ensure a safe operating margin over minimum levels of regulatory capital;

[4] Including a 2% operating buffer.

[5] Reserve Bank of New Zealand, above n 2, at 38. The RBNZ assumes a 6% growth rate. For the purposes of WNZL's submissions, this has been halved to 3%, which reflects the more dovish economic outlook.

[6] PricewaterhouseCoopers *International comparability of the capital ratios of New Zealand's major banks – update paper* (17 May 2019).

iii. utilise the Basel Committee on Banking Supervision (**BCBS**) Basel III revised standardised risk weightings to "level the playing field" between IRB and standardised banks, removing the need for artificially high output floors and scalar; and

iv. allow appropriate levels of both AT1 capital instruments and Tier 2 instruments to be utilised to achieve strong levels of capital (achieving "soundness") in an efficient manner to maintain economic competitiveness for New Zealand borrowers (achieving "efficiency").

WNZL's alternate structure is discussed in more detail in **Part F**.

3. The Proposals

3.1. The Consultation Paper outlines a number of proposals in relation to the level, composition and calculation of capital required by banks in New Zealand. Significantly, the Proposals would:

a) require D-SIB banks to hold CET1 capital of 16% of RWA, and other banks to hold 15%;

b) for IRB accredited banks (including WNZL), set the RWA floor under the IRB approach to 85% of the calculation under the standardised approach applied by standardised banks;

c) increase the scalar required to be applied to RWA from 1.06 to 1.2 which, in addition to (b) above, has the objective of increasing the RWA of IRB banks to a minimum of 90% of standardised banks; and

d) "de-recognise" AT1 hybrid capital, effectively requiring capital to be made up purely from CET1 capital.

4. Introduction

4.1. WNZL welcomes the opportunity to provide feedback to the RBNZ on the Consultation Paper.

4.2. WNZL supports measures to ensure banks are well-capitalised in order to maintain investor confidence, even in periods of economic stress. WNZL believes that such capital should be readily available to offset lending losses in times of stress, in the form of equity capital and capital instruments that are convertible into equity, to enable banks to be quickly and seamlessly recapitalised if required.

4.3. The RBNZ has proposed that New Zealand banks hold sufficient capital to reduce the probability of a financial crisis in New Zealand to a 1 in 200 year event. However, the RBNZ has not provided New Zealanders with important context for this proposal (such as counterfactuals), and has advised that it has not attempted to undertake a cost-benefit analysis of the Proposal.

4.4. In our view, the Consultation Paper does not adequately consider (and therefore inform) readers of the adequacy of current minimum capital requirements in New Zealand, or assess the probability of crisis based on the current capitalisation requirements. The RBNZ has not considered whether there is in fact a problem with current capitalisation and, consequently, has not defined the problem that the Proposals seek to solve.

4.5. At the core of the Proposals is the RBNZ's requirement that New Zealand banks increase CET1 capital by $20bn. However, the limited information about the modelling and analysis outlined by the RBNZ in the Consultation Paper does not appear to support this aspect of the Proposals.

4.6. The Consultation Paper does not adequately address the cumulative impact of each element of the Proposals, in particular the effect of changes to risk weightings. As a result, the cost of

the Proposals, and the impact on the economy, have been significantly underestimated. WNZL considers that the Proposals are likely to have a significant negative impact on the economy (an annual drag of approximately 1.3% of GDP) as a result of higher borrowing costs and restrained lending capacity resulting from credit rationing.

4.7. Importantly, the Proposals ignore current New Zealand bank capital levels relative to international markets. The deep body of knowledge and expertise among central bank regulators globally is a valuable resource in assessing what is appropriate for global banks, and, ultimately, for New Zealand banks. A key consequence of the disconnect in capital requirements would be to cause New Zealand producers to be at a material disadvantage in international markets as a result of higher funding costs and restricted access to credit. While there is an understandable temptation to lead international regulatory capital developments, it is an area that would benefit from steady, sustainable observation of jurisdictions with greater scale and experience of crises.

4.8. An objective underlying the Proposals is to "level the playing field" of capital treatment between IRB accredited banks and standardised banks, although it is not clear how that is consistent with the RBNZ's mandate. The Consultation Paper does not consider a range of options available in attempting to achieve this outcome, other than the proposed solution which is to apply inappropriate risk weightings to the entire regulated banking sector. The inevitable and undesirable consequence will be to drive activity away from the regulated sector towards offshore and alternative sources of finance. Further compounding the issue is the proposal to restrict certain capital instruments from qualifying as "capital".

4.9. Independent commentators have raised concerns about whether the consultation process meets the commitments outlined in the RBNZ "Relationship Charter" designed to achieve sustainable considered outcomes. In the context of the concurrent Treasury and RBNZ review of the Reserve Bank of New Zealand Act 1989 (the **Act**) which considers appropriate governance of the RBNZ (**Phase 2 Review**), and in the absence of the prudential regulatory checks and balances that would be found in the exercise of powers of other regulators, a balanced consideration of the capital options and comprehensive independent cost benefit analysis is a necessary component of the consultation process.

PART A: THE RISK APPETITE FRAMEWORK

1. Introduction

1.1. The RBNZ's powers of prudential supervision are contained in part 5 of the Act. These powers must be exercised for the purposes of "promoting the maintenance of a *sound and efficient* financial system".[7] Underpinning the Proposals is the RBNZ's risk appetite framework approach to determining the appropriate level of capital to be held by New Zealand banks for the purposes of promoting a sound and efficient financial system.

1.2. In this section we outline our concerns with the RBNZ's risk appetite framework approach. Specifically, our submissions are:

a) *RBNZ's risk appetite settings:* the bases of the risk appetite settings in the Proposals (including the purported societal risk appetite of a 0.5% chance of bank crisis) are not justified by any supporting data or evidence and do not provide the correct starting point for the consideration of the appropriate level of capital in the banking system; and

b) *RBNZ analysis:* the analysis provided to submitters is materially incomplete and flawed. Academic research appears to have been selectively utilised, and international comparatives inappropriately applied in forming the Proposals.

2. RBNZ's risk appetite settings

2.1. The RBNZ has acknowledged that "the risk preferences of New Zealanders cannot be known with great precision" but considers that it has the delegated authority to make such decisions on behalf of the public.[8] The authority for this delegated authority is not provided in the Consultation Paper.

2.2. At the heart of the Proposals is an assessment that the correct starting point, in the absence of an understanding of the risk tolerance of the general public, should be a 0.5% probability of a banking crisis. This is expressed in the Consultation Paper as a one-in-200 year (1:200) probability of crisis. Given the significance of this metric on the quantum of the proposed level of capital which flows from this, we would expect this metric to be at the centre of the substantive analysis.

2.3. Neither the Consultation Paper nor the subsequent outline of the analysis supporting the risk appetite statement (**Background Paper**)[9] appear to adequately justify this risk setting beyond a broad discussion of societal risk appetite. As recently as 6 weeks before the Consultation Paper was published, internal RBNZ steering group papers show a proposed policy goal for the Capital Review as capping the probability of crisis to 1% (i.e. 1 in 100 year event), this figure being based on a benchmark set by the Federal Bank of Minneapolis.[10] In a change of approach which is not explained (other than to state that the RBNZ opted for "a more conservative option"), the RBNZ moved the probability to 0.5%.[11]

2.4. The only support provided for the 1:200 probability setting in the Consultation Paper is to refer to "precedents"[12], including a 0.5% risk of insolvency used in insurance solvency standards in Europe. It is not clear however, how solvency standards for the insurance industry are relevant to the probability of banking crises, when the nature of risks and costs associated with events differ significantly between the two industries.

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[7] Reserve Bank of New Zealand Act 1989, s 68.

[8] Susan Guthrie *Capital Review Background Paper: An outline of the analysis supporting the risk appetite framework* (April 2019) at 12.

[9] Guthrie, above n 8.

[10] Susan Guthrie *Risk Appetite framework used to set capital requirements* (October 2018).

[11] Susan Guthrie *Capital Ratio Calibration* (November 2018).

[12] Reserve Bank of New Zealand, above n 2, at 13.

2.5. The assumption that New Zealanders will favour lower risk (i.e. 1:200 year probability setting) has not been evidenced, and presupposes that the cost of this benefit is less relevant. The RBNZ indicates that the Proposals represent a fair reflection of society's risk appetite and, in effect, that society is prepared to pay an increased premium (in the form of an economic downturn and higher interest rates) to pay for the capital increases required to meet these risk settings.

2.6. A more comprehensive approach would include assessing the level of risk New Zealand bank deposit holders are prepared to take in relation to the credit worthiness of deposit-taking institutions. Recent history suggests that New Zealanders have a propensity to take substantial risk in pursuit of additional yield.

2.7. A more robust approach to the assessment of societal risk appetite would be a detailed "willingness to pay" survey, alongside detailed information about the costs and benefits associated with increased capital levels. A recent local example is work undertaken in the electricity sector to assess customers' willingness to pay to avoid power outages.[13] The work was complex, requiring detailed exposition of outages, the direct and indirect costs and how much responders are willing to pay for each scenario. Other sectors that have taken a similar approach include analysis of options on ports, toll roads, congestion charging and rail networks.

2.8. Given the potential impact of the Proposals, more research, including a survey, should be undertaken. Presently, the Consultation Paper and Background Paper set out a series of assumptions which do not provide a complete picture of crisis scenarios, nor a realistic view of how the Proposals may impact borrowers and savers in ordinary times. Detailed analysis of the effect of the Proposals, including (permanent) increases to interest rates and credit rationing, has not been undertaken. The lack of analysis is problematic given that the effect of the Proposals may be such that small businesses, farms and first-time home buyers in particular, may be at risk of isolation from mainstream lenders faced with restricted capital resources.

3. Analysis incomplete and flawed

3.1. A number of observations in the Consultation Paper, while based on logic in isolation, do not support the proposed quantitative outcome. While it is clear that society prefers to avoid financial crises, what cannot be drawn from this observation is how much society is prepared to pay for this risk relief. Moreover, while more capital may provide banks with more resilience in the face of financial crises, it is not clear to what extent bank capital at the levels proposed by the RBNZ could prevent a crisis, or at what point requiring additional capital is inefficient and impedes economic growth.

3.2. The quality of econometric work throughout the Proposals is superficial relative to the scale of the potential impact, and appears positioned to support the Proposals, rather than to inform them. Attempts to link 0.5% probability of crisis to 16% CET1 capital appear to be an exercise in setting a range of improbable variables that produce a desired range of outcomes to justify an optimal capital level.

3.3. The background papers released by the RBNZ on 25 January 2019 following Official Information Act requests (**Information Release**) as supplemented by the Background Paper, provide only very limited insight into the RBNZ modelling undertaken by the RBNZ. The Information Release was produced some time after the Consultation Paper, and didn't include a model. Therefore, it is difficult to decipher what information formed part of the RBNZ's considerations at the time of the Proposals.

3.4. To complement the international studies outlined in the Consultation Paper, the RBNZ states that it has undertaken its "own modelling exercise using a similar analytical approach"[14] to the

[13] Electricity Authority "Investigation into the Value of Lost Load in New Zealand" (July 2013) <https://www.ea.govt.nz/dmsdocument/15385>.

[14] Reserve Bank of New Zealand, above n 2, at [77].

international studies. However, the RBNZ has not presented its results in the form of an optimal capital ratio and has not provided access to the models, or detailed modelling results.

3.5. Nevertheless, based on the information provided by the RBNZ in the Background Paper, we have undertaken our own modelling utilising New Zealand data in an effort to back-solve for the inputs that must have been used to produce the RBNZ results. As demonstrated in Table 2 (see page 17), our modelling does not produce an optimal CET1 level of 16%.

3.6. Table 2 demonstrates that Probability of Default (**PD**), Loss Given Default (**LGD**) and Default Correlation (**R**) settings require considerable manipulation to unreasonable levels to achieve a capital ratio of 16%. These settings and our outline of alternative appropriate settings are included in Part B, paragraph 2.

3.7. While it is difficult to provide probability precision as far as three standard deviations into the tail of outcomes, more robust modelling and a closer read of academic literature indicates that a 16% CET1 requirement would equate to a range of probabilities of crisis occurring between 1:333 and 1:500 years. Table 2 demonstrates that, in order to justify a minimum CET1 ratio of 16%, the probability of crisis would need to be set at no less than 1:400. Of note is that this conclusion is drawn despite utilising midpoints of the RBNZ's PD and LGD variables which WNZL considers to be materially inflated. More reasonable PD and LGD settings would produce even lower probabilities of crisis (in excess of 1:1000 years).[15] The Proposals have essentially assumed that New Zealanders would be willing to pay for protection against a banking crisis occurring within a period equivalent to that from the time between the failure of the Medici Bank in 1494, through the South Sea Bubble in 1720, to today.

Failure to consider impact of prudential policies

3.8. The RBNZ's Liquidity Policy (**BS13**), which delivered improvements in bank liquidity and core funding, has been operational in New Zealand for almost a decade. BS13 has operated to ensure that New Zealand banks are now better placed to withstand liquidity and funding crises, similar to those which lead to the global financial crisis (**GFC**) in 2008. We note that the GFC affected New Zealand bank funding and liquidity but did not produce a credit related banking crisis. In other words, it did not produce a banking crisis in New Zealand which could have been alleviated by increased capital.

3.9. Further, the Proposals have not been considered in the broader context of New Zealand's bank failure resolution and bank resilience policies and systems, including the open bank resolution (**OBR**) regime, statutory management and the proposal to introduce depositor protection being considered as part of the Phase 2 Review. It is important that these existing systems and the Proposals are considered holistically and designed to work together efficiently. The RBNZ has previously acknowledged the interrelationship between the OBR regime and capital levels. Discussing the costs and capital requirements of a banking crisis, the RBNZ noted that "[t]his does not lead us to require ever increasing levels of capital however, as the introduction of the Open Banking Resolution policy will reduce the probability of a bailout…"[16]

3.10. Macro-prudential enhancements have improved asset quality, particularly with respect to bank mortgage portfolios. The Proposals should be considered in the broader context of other prudential policies in order to demonstrate the "efficiency" element of the RBNZ's statutory mandate. Had such analysis been undertaken, it is unlikely that the RBNZ would have concluded that the levels of capital proposed in the Consultation Paper could be justified.

Selective inclusion of academic studies

3.11. The Proposals do not align New Zealand risk appetite with global standards in the context of a globally connected regulatory environment. The Proposal and Information Release

[15] Utilising a confidence level of 99.9% per the RBNZ's Capital Adequacy Framework Document (BS2B)

[16] Reserve Bank of New Zealand *Regulatory impact assessment of Basel III capital requirement in New Zealand* (September 2012), at [44].

also contain selective international research and data, without consideration of application to New Zealand.

3.12. New Zealand risk weights are already set at globally conservative levels (well in excess of long-term New Zealand loss rates). A recent PricewaterhouseCoopers (**PwC**) comparison[17] of global capital estimated that New Zealand banks' capital levels would be 540bps higher than the face value reported, once adjusted to be globally comparative. While the RBNZ has disputed some of the metrics used by PwC (and therefore the exact quantum of excess)[18] it did not dispute the conclusion that New Zealand banks are materially stronger than in other jurisdictions, including Australia. A similar study undertaken in Australia by PwC[19], and largely accepted by the Australian regulator, concluded that Australian banks were 400bps stronger when reported on a globally comparative basis.

3.13. In support of the CET1 capital ratio at 16%, the RBNZ produced a table of international studies providing conclusions as to optimal levels of capital entitled "*Studies estimating an optimal level of capital*" [20] (reproduced below as Table 1). The optimal capital ratios presented in this table range from as low as 7%-11% to as high as 13%-26%.

3.14. However, the studies listed in this table predominantly do not support a CET1 capital ratio as high as 16%. This holds true notwithstanding the fact that:

a) the studies were conducted in jurisdictions with substantially lower (i.e. less conservative) calculations of regulatory RWAs than in New Zealand; and

b) bank data associated with the GFC was utilised, including from banks requiring governmental support. This is in contrast to New Zealand (and Australian) banks which remained solvent and viable throughout the GFC. Of the papers which consider more fully the impact and recovery from the GFC, Brooke et al (2015) [21] (**Brooke**) and Cline (2016) [22] (**Cline**) find that the optimum level of CET1 capital is significantly short of 16%.

[17] PricewaterhouseCoopers *International comparability of the capital ratios of New Zealand's major banks* (October 2017).

[18] Reserve Bank of New Zealand *2017 PwC (NZ) Study* (May 2018).

[19] PricewaterhouseCoopers *International comparability of the capital ratios of Australia's major banks* (August 2014).

[20] Reserve Bank of New Zealand, above, n 2, at 28.

[21] Martin Brooke, Oliver Bush, Robert Edwards, Jas Ellis, Bill Francis, Rashmi Harimohan, Katharine Neiss, and Caspar Siegert *Measuring the macroeconomic costs and benefits of higher UK bank capital requirements* (Bank of England Financial Stability Paper, 2015).

[22] William Cline *Benefits and Costs of Higher Capital Requirements for Banks* (Peterson Institute for International Economics Working Paper Series, 16(6), 2016).

Table 1 – Studies estimating an optimal capital ratio

Table 8: Studies estimating an optimal capital ratio

Study	Optimal capital ratio (CET1 unless otherwise noted)	
	Range	Notes
BCBS (2010)	10% (crises have no permanent effect) 13% (crises have moderate permanent effects on GDP)	Uses tangible common equity as proxy for CET1
Schanz et al. (2011)	10% to 15%	Uses pre-Basel III definition of capital
Miles et al. (2012)	18% to 20% (crises have some permanent effects on GDP growth) 16% to 18% (crises have no permanent effects on GDP growth)	
Yan et al. (2012)	10%	
Junge & Kugler (2012)	Up to twice the Basel III minima	
Mendecino et al. (2015)	12% to 16% (Total capital ratio)	
Brooke et al. (2015)	10% to 14% (baseline result) 7% to 11% (costs of crises are temporary) 15% to 19% (improved resolution arrangements and other UK prudential reforms are ineffective) 7% to 11% (transition to higher capital is moderately costly)	
Cline (2016)	7% to 8% (leverage ratio) 12% to 14% (Tier 1 ratio)	
Firestone et al. (2017)	13% to 26% (Tier 1 ratio)	

3.15. Only the Firestone et al. (2017) (**Firestone**) study [23] supports 16% as the optimum CET1 capital ratio. However, this study cannot be properly applied to the New Zealand banking environment. Specifically:

a) this study draws on bank data from the United States and is dominated by two periods of substantial bank stress covering the period following the share market crash of 1987 and the GFC;

b) the United States lending market differs structurally from the New Zealand market in that it is more risky, including (relevant to the GFC experience) the existence of sub-prime lending and non-recourse ("walk away") loans in the United States. The United States results include the impact of 14% non-performing subprime loans in a housing crisis fuelled by lending practices not seen in New Zealand, such as "ninja loans"[24]. A key contributing factor to the crisis in the United States was the disintermediation of banks from mortgage origination funded by securitisation. This disintermediation relieved the originator from credit losses associated with the lending. Such disintermediation is not a feature of the bank lending market in New Zealand;

c) the study utilises a significantly short time series of data (1988-2011). This period includes a number of substantial global shocks that, while relevant to such a study, have had the effect of skewing the data. If the study had been undertaken over a longer time period, the probability of a crisis would likely to have been more akin to that of the BCBS (2010)[25] (**BCBS**) and Brooke studies. In particular, we note that the Firestone study utilised a probability of crisis of 3.8% (for 8% of CET1 capital held) as a calibration point for other capital levels.[26] As a comparative, this calibration point is materially higher than is used in other credible studies; and

[23] Simon Firestone, Amy Lorenc, and Ben Ranish *An empirical economic assessment of the costs and benefits of bank capital in the US,' Finance and Economics Discussion Series 2017- 034* (Washington: Board of Governors of the Federal Reserve System, 2017).

[24] "Ninja" is an acronym for "No Income, No Job and No Assets" borrowers.

[25] Basel Committee on Banking Supervision *An assessment of the long-term economic impact of stronger capital and liquidity requirements* (2010).

[26] Brooke et al, above n 21, at 18.

d) the study also assumes a Modigliani-Miller (**MM**) offset of 50%. We believe this to be at least double the New Zealand experience. Further discussion of the MM offset is contained in Appendix 1 to this submission.

3.16. In order for the Firestone study to be applicable to New Zealand, it would require substantial recalibration, including to address the impact of crisis management tools, non-recourse mortgages, liquidity, stable funding and RWA calculations, and would require the utilisation of a more appropriate MM offset. Such recalibration would likely reduce the Firestone estimate of optimal CET1 capital ratio to substantially below 14%.

3.17. The discussion of the Brooke study in the Consultation Paper, including to restate the optimum CET1 capital ratio as between 14-16%[27], is flawed. The only scenario in which this CET1 capital ratio is supported in this study is where a bank resolution does not work. This could not be the case in New Zealand, given that New Zealand has a robust OBR regime that is imposed and regulated by the RBNZ.

3.18. Other studies considered by the RBNZ, including Brooke and Mendicino et al. (2015)[28], which produce higher optimal CET1 capital ratios are based on United States data and would require significant recalibration to be applicable in New Zealand. In particular, and as discussed in paragraph 3.15(b) above, there are higher inherent risks in United States mortgage products when compared with those in New Zealand. The findings of the studies are the result of the lower average risk weightings utilised by United States banks, i.e. 16%-17% for residential mortgages (which is almost half of the WNZL reported risk weighting).

3.19. In the BCBS study, the meeting of Net Stable Funding Ratio (**NSFR**) requirements was found to have a material impact on the probability of a crisis.[29] The BCBS study found that a 13% CET1 capital ratio would achieve a 0.5% probability of a crisis, which is further reduced to a 0.3% probability for banks that have a NSFR of 1.12.[30]

Use of inappropriate international comparatives

3.20. The Proposals reference extreme global economic events as examples of those that could happen in New Zealand. One such event was the experience of the housing market in Ireland in 2009. The Irish housing market underwent a spectacular boom from 2002 to 2008, followed by a significant market correction during the GFC. Absent from the Proposals is consideration of the effect of changes to Irish mortgage legislation in 2009 (pursuant to the Land and Conveyancing Law Reform Act) which made mortgagee sales almost impossible for mortgages dated prior to 1 January 2009.[31] As a result, a disproportionate number of borrowers opted to suspend mortgage payment as a means of managing financial stress.[32]

3.21. The short-term outcome of the implementation of this legislation was a rapid increase in non-performing loans well above rates in other comparable markets[33] (illustrated in Chart 1 below). The level of non-performing loans reflected the effect of the legislation, rather than a gauge of mortgage default rates. Many mortgages returned to "performing" following amendment of the legislation.

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[27] Reserve Bank of New Zealand, above n 2, at 21.

[28] Caterina Mendicino, Kalin Nokolov, Javier Suarez and Dominik Supera *Welfare analysis of implementable macroprudential policy rules: heterogeneity and trade-offs* (ECB Macroprudential Bulletin, No. 1, 2016).

[29] Basel Committee on Banking Supervision, above n 25.

[30] Basel Committee on Banking Supervision, above n 25, at 15. We note that BCBS refers to banks exceeding 1.12x the NSFR minimum. In a New Zealand context we estimate this translates to a Core Funding Ratio of slightly above 80% which is exceeded by all D-SIBs.

[31] Land and Conveyancing Law Reform Act 2009.

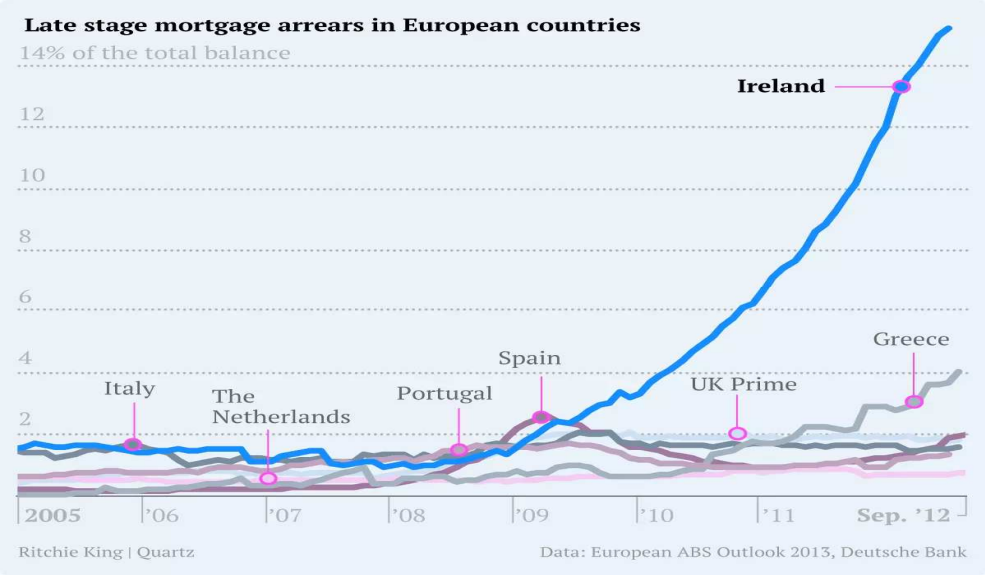
[32] The Land and Conveyancing Law Reform Act 2009 was not amended to remove these provisions until 2013.

[33] Matt Phillips "Welcome to Ireland, where mortgage payments are apparently optional" (2013) <https://qz.com/50615/welcome-to-ireland-where-house-payments-are-optional-apparently/>.

3.22. While we accept that the Irish market was likely to have seen an escalation of arrears during the GFC (as was the case in other European markets), the key driver of increased arrears in Ireland was the legislation and is not, therefore, a reasonable parallel for the New Zealand environment. By way of example, arrears in residential mortgages in 2011 in Ireland peaked at 13% while post-GFC New Zealand residential mortgage arrears peaked at 0.8%.

3.23. We also accept that New Zealand is not immune from future housing stress. However, excluding the extreme events in Ireland and Greece (which related to broader structural dysfunction) a New Zealand experience would not be expected to be materially more significant than other European experiences through this period (i.e. non-performing loans of up to 2% as in Chart 1 below). Even the United States market, with non-recourse lending, saw a peak in arrears of prime mortgages of 3.1% during the GFC (despite arrears of sub-prime mortgages reaching 14%).[34]

Chart 1 – European mortgage arrears



The GFC as a case study

3.24. The GFC provided a relevant study for a number of key observations with respect to financial crises and bank capital, though it does not feature extensively in the RBNZ analysis. The GFC had its genesis in the international abundance of cheap credit (particularly in Europe and the United States), which contributed to lax lending standards and fuelled asset inflation. The combination of these factors lead to the misallocation of resources and the ultimate default of many (housing and business) loans in geographies where the assets had become substantially overvalued and underutilised.

3.25. Ultimately, the GFC led to the collapse of a number of assets markets, which, in turn, gave rise to bank failures in Europe and the United States. The extent to which the holding of higher levels of capital by banks would have prevented bank collapses is a matter of debate, however, it is generally acknowledged that the GFC would not have been prevented simply by higher bank capitalisation.

[34] Data sourced from Canadian and U.S. Residential Mortgage Arrears and Foreclosure Rates "Canada Mortgage and Housing Corporation – Residential Mortgage Arrears and Foreclosure Rates" (2018) <https://www.cmhc-schl.gc.ca/en/data-and-research/data-tables/canadian-us-residential-mortgage-arrears-foreclosure-rates>.

3.26. In economies where resource allocation had not been pursued with the same vigour as in Europe and the United States, and where bank risk-taking had not radically departed from the path of traditional lending, resource reallocation was less marked. In countries with strong regulator monitoring of resource allocation (including Australia, Canada and New Zealand), the GFC did not lead to a banking crisis.

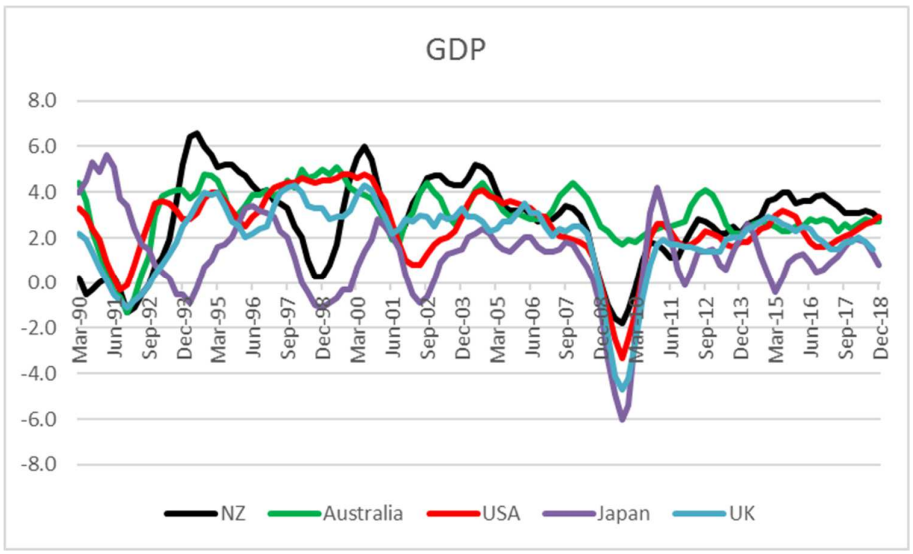
Excessive bank capitalisation does not reduce cost of crisis

3.27. Well-capitalised banks are a valuable resource for ensuring financial resilience. However, the burdening of banks with excessive levels of capital will ultimately handicap the growth of the broader economy and will not, in and of itself, prevent a financial crisis.

3.28. Underlying the Proposals is an assumption that crises are either caused by bank failure, or could have been prevented by enhanced bank capitalisation. The conclusion drawn is that higher levels of bank capital could have prevented such crises, without reference to the importance of other accepted mitigants such as standby liquidity tools or stable sources of bank funding.

3.29. The financial crisis in 2008 resulted in a material drop in GDP across a number of nations. Chart 2 below sets out the movements in GDP from 1990 – 2008 in New Zealand, Australia, Japan, the United States and the United Kingdom.[35] While it may be argued that bank collapses in the United Kingdom and the United States contributed to the subsequent recession in these countries, a banking crisis did not occur in New Zealand, Australia or Japan. All these countries experienced a drop in GDP and, in Japan's case, a deeper recession than in both the United Kingdom and United States, despite there being no banking crisis.

Chart 2: GDP 1990 – 2018



3.30. Following the share market crashes in 1987, many countries experienced economic contraction which lasted into the early 1990s. In New Zealand, the impact was felt in bank lending losses. However, only one bank (BNZ) required recapitalisation via a taxpayer bailout. All other major New Zealand banks remained solvent and operational.

3.31. Arguably, the issues experienced by BNZ were largely the result of aggressive overseas growth (primarily in Australia where the large majority of losses were experienced),

[35] Data sourced from Stats NZ *Gross domestic product: December 2018 quarter* (2019).

compounded by poor capitalisation.[36] New Zealand banks now operate almost exclusively in New Zealand, with superior risk profiles and lower risk appetite.

3.32. The product and business requirements for New Zealand banks and businesses are substantially less sophisticated than larger multinational banks and, therefore, risk is better understood and managed in New Zealand. The lack of sophistication avoided the issues associated with securitisation and hidden leverage during the GFC.

3.33. The RBNZ considers that there are limited New Zealand experiences of crises from which to gather data.[37] However, we consider that have been a number of global events in more recent history that have tested the New Zealand economy. Riddell and Sleeman[38] provide a number of examples in their review of economic events affecting New Zealand, none of which resulted in local domestic financial crises.

3.34. These experiences demonstrate that few economic crises have their origin in New Zealand. In fact, no domestic crisis has had its origins in New Zealand for over 40 years. However, material global slowdowns can lead to a marked slowdown in the New Zealand economy. Importantly, despite the economic slowdowns (and notwithstanding BNZ in 1991), New Zealand banks have proven very resilient.

3.35. Other studies which have considered the impact of a financial crisis over the longer term are limited. Cline [39] analysed data from countries that had crises and those that did not (including New Zealand). Cline's observations suggest that a financial crisis is not made substantially better or worse when considered alongside a bank crisis. In fact, he noted that countries such as Australia, Canada, Norway and Finland were not materially better off than many economies that did experience bank crises.

Failure to consider impact of parental support

3.36. The 1991 economic slowdown demonstrated certain key considerations which have been largely discounted or ignored in the Consultation Paper. Perhaps the most critical in this period is an observation that the major banks with offshore ownership managed through the stress without the need for taxpayer support. It is reasonable to consider that parental support through the 1991 slowdown and post-GFC in New Zealand, through both enhanced risk management and financial input, was a key factor which contributed to the banks' recovery.

3.37. The offshore ownership of major banks in New Zealand holds key benefits for the broader New Zealand economy. As subsidiaries of international banks, the major New Zealand banks have limited international exposure on their New Zealand balance sheets, with international exposure generally held by the parent bank in another jurisdiction. As such, the local entity is spared the impact of more substantial losses associated with downturns in international economies. This is in contrast to the experience of BNZ in 1991 which took a large portion of losses in Australia. The BNZ loss experience was mirrored by NZI Bank which at the time was also New Zealand owned and managed, but incurred substantial lending losses as a result of a failed attempt to expand into Australia.

3.38. The benefits of the support of a large (Australian) parent was evident for major banks in New Zealand throughout the GFC through the provision of funding and liquidity support. This support was demonstrated by way of direct funding, or as implied support manifested in favourable credit ratings and ultimately market access for wholesale funding.[40] The value of

[36] BNZ had a CET1 capital ratio of <5% (of today's RWA calculations), with a considerably higher exposure to commercial property and other higher risk lending. By way of example, BNZ had 15% balance sheet exposure to residential mortgage in 1991 vs 60% in 2018.

[37] Reserve Bank of New Zealand, above n 2, at 22.

[38] Michael Riddell and Cath Sleeman *Some perspectives on past recessions* (Reserve Bank of New Zealand Bulletin 71(2), 2008) at 5-21.

[39] Cline, above n 22.

[40] Discussed in further detail under "MM offset" in Appendix 1.

parental support can be undermined however if local New Zealand capital requirements move out of line with those of the parent's regulator. The effect of significantly increasing the required level of capital held in the subsidiary may either restrict the parent's capacity to support, or undermine the implied parental support, and may therefore negatively impact the overall credit rating.

3.39. Further, the RBNZ assumes that the increased capital would be available and willingly provided by the banks' shareholders, and that the cost to the economy would be the reduction in the return required by shareholders providing the additional capital. An alternative scenario exists however, in whole or in part, under which the required capital is *not* provided. The Proposals contain no analysis of the likelihood or effects of such a scenario. Yet statements made recently by the shareholders of the four large banks[41] indicate that a willingness to provide additional capital should not be assumed. The economic consequences could therefore be much worse than a rise in interest rates. If the large New Zealand banks cannot obtain sufficient additional capital, they will be forced to reduce RWAs (by reducing lending). Such lending reductions cannot easily be replaced by other market participants (most of whom are much smaller). Economists agree that such a scenario could have significant economic consequences.

[41] The Australian Business Review *Big banks on war path over NZ central bank's bid to raise minimum capital* (8 May 2019).

Part B: Risk Weightings

1. Introduction

1.1. The Consultation Paper only provides limited information on the modelling that the RBNZ undertook to reach the conclusion that the Proposals were appropriate, particularly in respect of the proposed CET1 ratio of 16% for D-SIBs.[42]

1.2. Whilst the subsequent Information Release on 25 January 2019 provides further information on the modelling undertaken, it appears that much of the quantitative analysis and related material was completed subsequent to the release of the Consultation Paper to support, rather than to inform, the initial Proposals.

1.3. In this section we outline our concerns with the RBNZ's analysis of risk weightings in the Consultation Paper. Specifically our submissions are:

a) The key model judgements (PD, LGD and R) lack rigour;

b) The RBNZ's regulatory approach already results in New Zealand banks having higher risk weightings than in other similar jurisdictions and increasing the RWA calculations for IRB banks will increase the differential further;

c) The risk weightings, output floors and scalar adjustment included in the Proposals have been structured with the objective of levelling the playing field between IRB and standardised banks. This objective can be achieved in a more efficient manner, substantially lessening the impact on the wider economy, by adopting the latest Basel III standardised risk weighting recommendations; and

d) The results of bank stress testing have been largely dismissed by the RBNZ as irrelevant in assessing the capacity of New Zealand banks to withstand periods of sustained economic slowdown. However, stress testing is considered internationally to be central to the continued, safe operation of the financial system and is widely utilised by international regulators to assess bank resilience.

2. RBNZ Risk Modelling

2.1. The key model judgements in the Proposal (PD, LGD and R) lack rigour. The judgements appear to be simplistically derived and draw on limited analysis of actual loss experience.

2.2. The RBNZ has modelled outcomes utilising the Asymptotic Single Risk Factor (**ASRF**) model and utilised just one exposure as a representation of the risk model of the entirety of the New Zealand banking system. WNZL considers that the use of a single factor risk model to inform optimal capital levels is too simplistic and the outcomes are not representative of the New Zealand banking sector. As an example, the ASRF model makes no differentiation between retail and non-retail parameters and how these perform through the cycle.

2.3. WNZL considers the PD range of between 1.0% and 2.25% utilised in the RBNZ modelling is overly conservative. New Zealand banks utilise a PD of around 1.1% to be representative of long run aggregate portfolio default rates. The RBNZ has conceded that there is insufficient "non-performing loan" data pre-1996 to inform a "through the cycle PD" and have therefore relied on historical impairment data.[43] The data is skewed by the issues of the early 1990s (discussed above) and the PD range is therefore not representative of New Zealand's current banking industry.

[42] Reserve Bank of New Zealand, above n 2, at [50 - 61].

[43] Guthrie, above n 8, at 56.

2.4. WNZL also considers that the LGD range utilised by the RBNZ of between 30%-40% is too high. While in some higher risk portfolios this range may appear appropriate, when considering the totality of New Zealand bank lending, the levels are extreme. By way of example, high Loan-to-value ratio (**LVR**) farming loans (with an average LGD of 41%) make up less than 1% of the WNZL RWA book. This can be compared against its residential mortgage book (with an average LGD of 20%) which makes up over 50% of the WNZL lending portfolio. The use of an LGD value of 40% is inappropriate as this is not representative of the system risk profile and drives an overly conservative capital outcome. Of note is that the 2017 bank stress testing across New Zealand's four large banks (in relation to stressed outcomes) indicated a weighted average LGD of around 31%.[44]

2.5. The RBNZ analysis does not take account of key factors affecting PD values. It does not consider the significant changes to bank portfolios over the timeframe of the supporting data which influence both PD and LGD values in terms of both retail and non-retail composition. Further, the analysis does not consider the macro-prudential changes to LVR distribution over the last 5 years, which materially influence both values and the overall safety of the portfolios.

2.6. WNZL considers that the R values applied by the RBNZ (at a range of 25-35%) are also too high. R is a simplistic measure utilised to measure how defaults in different portfolios react, proportionately and directionally, under stress conditions. Correlations of this magnitude do not recognise the diversification effect of a bank with broad customer coverage across multiple sectors and geographies. In addition, the RBNZ does not appear to have modelled decreasing asset correlations with increasing PD, which has had the effect of materially overstating the impact of higher defaults.

2.7. Further, with respect to the 2.0% "failure threshold" used in the RBNZ's modelling for capital, New Zealand banks already hold more capital than the regulatory minima in the form of operating buffers. As such, this failure threshold is an unnecessary additional element of capital.

2.8. Table 2 below illustrates a range of ASRF model outcomes and the significant assumptions adopted (particularly in respect of correlation) to achieve the proposed capital setting of 16%. The table demonstrates that significant data manipulation is required to achieve this setting.

Table 2 – ASRF model outcomes and assumptions

Model Input	RBNZ Min Values	RBNZ Max Values	RBNZ Midpoint Values	RBNZ Implied for 16% Midpoint	WNZL Min Values	WNZL Max Values	WNZL Midpoint Values
PD	1.00%	2.25%	1.63%	1.63%	1.38%	1.38%	1.38%
LGD	30%	40%	35%	35%	28%	28%	28%
R	35%	25%	30%	30%	8%	24%	16%
Confidence Level	99.50%	99.50%	99.50%	99.75%	99.90%	99.90%	99.90%
Failure Capital % RWA	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Reqd Capital Ratio %	**11.7%**	**17.1%**	**15.0%**	**18.0%**	**6.8%**	**13.9%**	**10.2%**
Less Failure threshold	**9.7%**	**15.1%**	**13.0%**	**16.0%**	**4.8%**	**11.9%**	**8.2%**
Failure Probability (Years)	**200**	**200**	**200**	**400**	**1000**	**1000**	**1000**

2.9. Notwithstanding the mathematically inappropriate treatment of these variables, the table also demonstrates that the use of the RBNZ's midpoint values would require the probability of failure to increase to 1:400 years (confidence level of 99.75%) to meet the 16% capital ratio if the failure threshold is ignored (i.e. if the operating buffer is included in the bank's capital stack).

[44] Reserve Bank of New Zealand, above n 2, at [59].

2.10. The modelling undertaken should have been utilised as a means of determining a reasonable stressed output and how this might then be applied to a more extreme stress event. Our analysis suggests that there has been limited attempt in modelling the Proposal to ascertain the scenario in which losses sustained by banks might endanger capital buffers. The implication is that the modelling has been designed to solve for a pre-determined outcome in order to support an increase in capital above current levels.

3. Banking regulation

3.1. Following the adoption of Basel capital adequacy standards, the RBNZ has introduced several changes to the standards that have resulted in risk weightings that are higher than in other jurisdictions.

3.2. Whilst absolute differences in capitalisation are difficult to quantify, RBNZ standards are more conservative than comparative jurisdictions. By way of example, Table 3 below sets out a comparison between the LGD values applied by the RBNZ to non-property investment residential mortgage loans and property investment residential mortgage loans, against those applied by the Australian Prudential Regulation Authority (**APRA**) and BCBS.

3.3. As demonstrated in Table 3, BCBS prescribes in its default risk weightings a 10%, and APRA a 20%, LGD floor for exposures secured by residential mortgages. The RBNZ prescribes a minimum LVR-stepped LGD that distinguishes between non-property investment residential mortgage loans and property investment residential mortgage loans.

Table 3 – Comparison of LGD values applied by RBNZ, APRA and BCBS

Mortgages	**RBNZ**	**RBNZ**	**APRA**	**APRA**	**BCBS**	**BCBS**
LVR	**LGD**	**LGD**	**LGD**	**LGD**	**LGD**	**LGD**
	Non Property Investment	*Property Investment*	*Non Property Investment*	*Property Investment*	*Non Property Investment*	*Property Investment*
90% and over	38.00%	40.00%	20.00%	20.00%	10.00%	10.00%
80%-89%	33.25%	35.50%	20.00%	20.00%	10.00%	10.00%
70%-79%	28.50%	31.00%	20.00%	20.00%	10.00%	10.00%
60%-69%	19.00%	21.50%	20.00%	20.00%	10.00%	10.00%
Under 60%	10.00%	12.50%	20.00%	20.00%	10.00%	10.00%

4. "Levelling the playing field"

4.1. A key policy goal of the RBNZ is to limit the extent to which capital requirements differ between IRB and standardised banks, and to create a "level playing field" between banks creating some simplistic public support for this aspect of the Proposals.[45] However, the RBNZ is not a competition regulator and the concept of "levelling the playing field" between banks is not currently within the statutory mandate of the RBNZ.[46]

4.2. The Proposals outline the use of output floors and an increase in the applicable scalar to level the playing field, which substantially increase risk weightings for IRB banks to bring overall risk weightings up to "90% of the outcome that would result under the standardised approach".[47]

4.3. IRB banks employ substantial resourcing in risk analytics. This resourcing contributes to the origination process and the management of portfolio risk, which makes the bank, and the banking system, sounder. The convergence of IRB banks to standardised levels (as in the

[45] Reserve Bank of New Zealand, above n 2, at 7.

[46] We note that as part of the Phase 2 Review, the RBNZ and the Treasury are considering whether competition should be included as an objective of the RBNZ.

[47] Reserve Bank of New Zealand, above n 2, at [88].

Proposals), has the reverse effect, through discouraging bank investment in risk analysis and risk modelling. The Proposals would artificially increase RWAs for IRB banks, and would not support the efficient and effective management of the origination or portfolio risk management process.

4.4. While it may be economically beneficial for a smaller organisation with limited product offerings to default to standardised treatment, the approach has the effect of dulling portfolio signals in the event of an economic downturn. An IRB-modelled portfolio is representative of current risk composition to a much greater degree than a standardised framework. A specific review of New Zealand standardised banks with portfolios weighted to residential lending may indicate that capital levels are unduly conservative. However, this would be an inappropriate metric or driver for change in IRB banks' more sophisticated measure of appropriate levels of capital.

4.5. Current differentials in RWA calculations between IRB banks and standardised banks highlight the benign credit environment. In more normalised stages of the credit cycle, the differentials between the IRB and standardised approaches will self-regulate. At peak periods of stress, it is likely that IRB risk weightings will move above standardised levels. The RBNZ should welcome IRB bank data as an opportunity to inform itself of current market risk.

4.6. Of importance is that the current standardised levels utilised in the Proposals are based on Basel II recommendations which were superseded by the latest Basel III recommendations. In late 2017[48], the BCBS, when introducing more granular standardised risk weightings, concluded that an output floor of 72.5% of the standardised approach was appropriate.[49] Phased implementation of the Basel III reforms starts in 2022 with full implementation by 2027.[50] APRA is also planning to use a 72.5 per cent output floor in Australia. By contrast, the RBNZ is proposing an output floor of 85% by 2020.

4.7. It is proposed that the scalar, which is used as a multiplier of the IRB banks' calculation of risk weights, is increased from 1.06 to 1.20. By contrast, the BCBS has proposed dropping the scalar entirely as a result of cumulative conservatism built into the risk assessment process. Given that New Zealand's capital framework is already conservative by both Australian and global standards, there seems to be no justification for not following the BCBS's recommendation of removing the scalar.

4.8. As a result of LVR restrictions imposed by the RBNZ since late 2013, New Zealand mortgage portfolios have become relatively risk-homogenous across banks. The restrictions, in addition to the competitive nature of the New Zealand mortgage market has resulted in relatively frictionless movement across mortgage suppliers. As such, mortgage products, and performance of those portfolios, differ little across the various banks.

4.9. Utilisation of the new Basel III standardised weightings (refer to Table 4 below) for standardised banks would provide a more granular approach to mortgage risk weightings. These weightings are particularly relevant when considering the RBNZ objectives relating to the harmonising of risk weightings for more generic portfolios (e.g. residential mortgages). As such, the weightings have a significant impact on standardised banks' competitiveness with regard to capital treatment for these products.

[48] Basel Committee on Banking Supervision *Basel III: Finalising post-crisis reforms* (2017).

[49] Basel Committee on Banking Supervision, above n 48, at 137.

[50] Basel Committee on Banking Supervision, above n 48, at 139.

Table 4 – LVR Comparisons using Basel II and Basel III weightings

LVR Band	Basel II Weightings (existing RBNZ framework)	Revised Basel III weightings
0-50%	35%	20%
50-60%	35%	25%
60-80%	35%	30%
80-90%	50%	40%
90-100%	75%	50%

4.10. Adopting the latest Basel III weightings for non-IRB banks would have the effect of levelling the playing field between IRB banks and standardised banks, but without the addition of disproportionate amounts of capital to the overall system and the resultant productivity drag.

4.11. The cumulative impact of multiple layers of conservatism in the RBNZ models (i.e. PD, LGD and scalar) results in risk weights in New Zealand portfolios that are well above international minimums. The comparative risk weighting of residential mortgages between Australia and New Zealand demonstrates the conservatism embedded in the Proposals. Despite factors such as product features, borrowers' home ownership ethos, market structure, mortgage default legislation, economic performance and mortgage loss rates being generally similar in both economies, risk weightings differ materially. For example, the average risk weighting for retail mortgages is approximately 28% in New Zealand compared with 24% in Australia.[51] The Proposals would result in average mortgage risk weightings in New Zealand increasing to approximately 34%.[52]

4.12. Whilst in some portfolios it may be appropriate to converge the risk weightings of IRB and standardised banks, there are a number of lending portfolios where such convergence is not appropriate. For example, defaulting all portfolios to a standardised approach would not be appropriate in areas where specialised industry knowledge is crucial in assessing the risks of lending in that industry. In these areas, it would not be appropriate for unsophisticated regional lenders to take exposure without specialist, in-house analytical support. A dumbed down static portfolio observation cannot be a substitute for the development of broader origination and portfolio management tools. The RBNZ's Proposal to align the risk weightings of the IRB approach to 90% of the standardised approach, ignores the benefit of the enhanced risk analytics and management capabilities of IRB banks.

5. Stress testing as a guide to portfolio performance

5.1. Regulatory stress testing is central to the continued safe operation of our financial system. International regulators have shifted their focus from simply understanding the effects of stress scenarios on credit performance and revenue, to utilising stress testing as an integral part of a bank's capital plan.

5.2. Stress tests should "play an important role in the RBNZ's supervision of the banking system".[53] The objective of stress testing is to strengthen risk management and inform bank boards, management and regulatory bodies as to the potential consequences of stress scenarios. This, in turn, enables stakeholders to form a view on the bank's capital and liquidity adequacy under

[51] PricewaterhouseCoopers, above n 6, at 15.
[52] PricewaterhouseCoopers, above n 6, at 15.
[53] Ashley Dunstan A *The Reserve Bank's philosophy and approach to stress testing* (Reserve Bank of New Zealand Bulletin Vol. 81, No. 8, July 2018), at 3.

severe but plausible scenarios, emphasising the need for stress testing to inform the RBNZ's minimum capital requirements.

5.3. New Zealand banks have subjected their portfolios to a number of severe scenarios over recent years, with an order of magnitude in excess of the economic and credit conditions experienced during the GFC. The outcomes from this analysis have reinforced the view that all New Zealand IRB banks remain strongly capitalised and are able to absorb a severe economic shock with existing regulatory capital holdings.[54] Of note is that the RBNZ's own publications (for example, Financial Stability Reports) have not shown a level of risk that would warrant the Proposals.

5.4. As the RBNZ acknowledges, there are a number of alternative views in determining optimal capital levels. The results and observations from the stress testing programmes should inform and underpin any proposed changes to capital levels.

[54] Charles Lily *Outcomes from the 2017 stress test of major banks* (Reserve Bank of New Zealand Bulletin Vol. 81, No.9, July 2018).

Part C – Recognition of AT1 Capital Instruments

1. Introduction

1.1 In December 2017, the RBNZ made a number of "in-principle" decisions in relation to the Capital Review, one being that Tier 1 Capital would consist of common equity and perpetual non-redeemable preference shares and that it would no longer recognise contingent convertible debt as Tier 1 Capital. Given that the decision was made prior to the release of the Proposals (which includes a significant increase in capital requirements), we strongly submit that this decision should be revisited.

1.2 The RBNZ has expressed concern around the utilisation of hybrid debt instruments (**Hybrids**) in New Zealand bank capital structure,[55] particularly in relation to:

(a) the ability to convert Hybrids to equity following a trigger event (a legal and moral hazard);

(b) market signalling of issuer credit-worthiness (through coupon cancellation and failure to call);

(c) selling hybrid debt securities to retail investors; and

(d) complexity.

1.3 WNZL considers that Hybrids are a cost-efficient mechanism, which in conjunction with CET1 capital, can allow banks to meet their capital requirements. Hybrids are an effective loss-absorbing product and remain attractive for appropriate investors. Use of Hybrids would allow the RBNZ's capital requirements to be met in a way that reduces bank funding costs, reducing the impact of the Proposals on New Zealand's economy.

1.4 Further background information about the operation of Hybrids can be found in Appendix 2.

2. Hybrid triggering

2.1 The RBNZ has expressed concern about the perceived unwillingness of banks (and regulators) to trigger suspension of call options and coupon (interest) payments. [56]

2.2 In recent years there have been moves by banks to treat Hybrid call dates as an economic opportunity rather than a moral hazard. For example:

(a) Banco Santander did not call an AT1 contingent convertible bond in February 2019. While investors expressed some concern, it was acknowledged that the decision not to call was economic (i.e. the refinancing would have been more expensive than rolling at the historic coupon). As a result, investors have become more aware of the increased (maturity extension) risk associated with roll costs;

(b) Standard Chartered Plc and Commerzbank AG did not call subordinated bonds in 2016 (for the same reasons) without any default or credit issues; and

(c) Deutsche Bank has established a pattern of not calling AT1 and Tier 2 bonds on the basis of economic rationale. In particular, it declined to call a Tier 2 bond in 2008 and an AT1 instrument in February 2016, based on the economics of the transactions.

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[55] Reserve Bank of New Zealand *Capital Review Paper 2: What should qualify as bank capital? Issues and options* (July 2017).

[56] Reserve Bank of New Zealand, above n 55, at [24].

2.3 Prior to a bank cancelling coupons or signalling non-redemption, it is likely that pricing signals would have already been made to the market via the NZX or other applicable continuous disclosure regimes. It is likely that informed investors will already have reacted to such potential events through equity and debt markets (which will be evident as price action in these markets reflects investor positioning).

3. Hybrids can be structured to address RBNZ's concerns around conversion and sale to retail investors

3.1 Supplementary capital instruments are an important source of loss absorbing capital and are consistent with the RBNZ's principle that "capital must readily absorb losses". The RBNZ has expressed concern around the convertibility of Hybrids. However, the RBNZ, through statutory management and OBR policies, would have significant input in the resolution process of a failing bank in New Zealand and would therefore have the capacity to manage the conversion process even if such products have not already been automatically triggered. The RBNZ's involvement in such a resolution process should mitigate any concerns it may have regarding perceived potential weaknesses in the conversion process of Hybrids and AT1 capital.

3.2 The terms of existing Hybrids are consistent with the RBNZ's principles in that they can absorb losses without triggering a default. The RBNZ challenges the loss absorbing effectiveness and value of Hybrids, arguing that contingent instruments with a bank issuer linked point of non-viability (**PONV**) trigger would, in practice, only absorb losses once the bank issuer becomes non-viable.[57] This ignores the fact that a PONV trigger will mean that contingent debt absorbs losses after common equity but ahead of senior creditors and depositors.

3.3 European experience has shown that Hybrids absorb losses in going concern banks[58], with the seamless conversion of €41.55bn of Hybrids into €32.44bn of equity in the period 2009 to 2013[59].

3.4 The loss absorption capability of Hybrids was highlighted by the Spanish Banco Popular failure in 2017.The bank's inherent capital weakness (i.e. high historical non-performing loans that were not appropriately valued) was emphasised when it posted a €3.5 billion loss in 2016, at least partly as a result of an unsustainable mortgage portfolio. The bank had €37 billion in foreclosures and other non-performing assets[60] accumulated during Spain's housing downturn (in 2012).

3.5 With the crisis deepening, there were significant concerns around the bank's inability to sell assets, raise capital and/or facilitate a takeover. The European Single Resolution Board declared Banco Popular to be at the point of "fail or likely to fail", and the bank was sold to Santander for €1. However, taxpayers were spared the cost of rescue and depositors were protected by the nature of the bail-in of AT1 capital.

3.6 The RBNZ has also raised concern about legal challenges associated with conversion.[61] However, we note the legal proceedings associated with the Banco Popular were not related to the conversion of Hybrids but to the resolution process (particularly in relation to Santander's sole involvement as the preferred bidder and conflict with its advisory role). We also note that insolvency events are often the subject of legal challenge by investors even outside the banking industry (a recent New Zealand example being the *Feltex* proceedings).

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[57] Reserve Bank of New Zealand, above n 55, at 45.

[58] Martien Lubberink and Annelies Renders *Are Banks' Below Par Own Debt Repurchases a Cause for Prudential Concern?* (2016).

[59] Graham Scott, Glenn Boyle, Martien Lubberink and Kieran Murray *How much capital is enough – a review of Reserve Bank Tier 1 capital proposals* (7 May 2019).

[60] Bond Adviser "Banco Popular: First European AT1 Hybrid (CoCo) Triggered" (15 June 2017) <https://www.bondadviser.com.au/blog/banco-popular-first-european-at1-hybrid-coco-triggered/>.

[61] Reserve Bank of New Zealand, above n 55, at [34].

3.7 The RBNZ has expressed concerns about Hybrids not being properly understood by retail investors. RBNZ's concerns appear focused on the potential for retail investors to end up with equity exposure as a result of conversion. However, New Zealand banks have previously highlighted that the sale of Hybrids are not made "over the counter" in bank branches (as has been seen in some European jurisdictions). We also note that the RBNZ's mandate does not extend to retail investor protection, which is the province of the Financial Markets Authority.

3.8 Notwithstanding paragraph 3.7 above, other mechanisms can be put in place to protect retail investors from this risk, including limiting the sale of Hybrids to non-retail investors (for example, setting minimum denominations for these instruments at a minimum parcel of $100k would prevent retail distribution).

4. Key benefits of retention of Hybrids

4.1 The key benefits of the continued recognition of Hybrids are as follows:

(a) *Effective in absorbing losses* - as discussed above, Hybrids provide going concern capital which is effective in absorbing losses before a bank becomes non-viable;

(b) *Cost-efficient* – the return required by hybrid investors is lower than that required by ordinary shareholders. This allows banks to meet their capital requirements in a more cost efficient way which would, in turn, assist in reducing the economic impacts of the Proposal resulting from higher funding costs;

(c) *Retain ability to issue to international investors* – it is important for Hybrids to be able to be issued in a form that is attractive and familiar to international investors to ensure global appetite (i.e. consistency with globally-recognised instruments), to assist in achieving similar benefits to those in (b) above;

(d) *Provide New Zealand professional investors with direct exposure to New Zealand banks* - as New Zealand banks are predominately either owned by Australian or other offshore banks or are mutual or co-operative structures, New Zealand institutional investors have limited opportunity to invest directly in New Zealand banks. Investment is only through senior debt, or indirectly (and inefficiently) through investment in the offshore parent. Investment in AT1 capital allows for more targeted investment in New Zealand banks with quasi-equity exposure; and

(e) *Eliminate debt overhang* - conversion of Hybrids into equity both assists in recapitalising a stressed bank and also reduces existing debt. As a result of conversion, the drag of leverage and funding cost on the banks' future profitability (which is key to recapitalisation) is reduced, enhancing the speed of recovery.

4.2 The absence of Hybrids in the proposed regime narrows the regulatory capital structure of banks towards common equity, without substantively altering the protections already in place that prevent loss of value through redemption when a bank is in financial stress. Hybrids can be structured in ways to ensure that they are appealing to both appropriate investors (who thereby create demand for such products) and the RBNZ, as robust and reliable loss absorbing capital instruments. In a globally linked financial services industry, the regulator in New Zealand, as in other jurisdictions, needs to have the capability to assess and monitor Hybrids. The resourcing of this capability can be funded by the industry as necessary.

Part D – International comparisons

1. Introduction

1.1. The level of capital proposed to be held by New Zealand banks substantially exceeds levels held by comparable international banks. The Proposals would require New Zealand banks to hold as much as double the capital held by international banks, and almost double that held by major Australian banks.[62]

1.2. The RBNZ has not sought to align international research with New Zealand specific requirements. It has taken international research in its unmodified state without regard to New Zealand conditions, markets or economic structure. The asset construct of New Zealand banks differs substantially from those of the jurisdictions discussed in the Consultation Paper, as do the products and services offered by New Zealand banks, and the legal and economic environment.

2. International comparability analysis

2.1. In 2017, PwC undertook analysis to seek to address the international comparability of capital ratios[63]. However, the analysis was dismissed by the RBNZ on the basis that it had failed to distinguish between regulator constraints that reflect systemic risks not captured in bank models, and regulator conservatism.[64] The same work undertaken by PwC in Australia was largely accepted by the Australian regulator[65] and generally accepted by the market as credible analysis.

2.2. PwC has subsequently undertaken further analysis to address the RBNZ's concerns and to update the original analysis (**PwC Paper**)[66] in light of the publication of the Proposals. PwC found that:

a) New Zealand banks are already well capitalised [67];

i. New Zealand banks are capitalised at or above the level that APRA considers to be "unquestionably strong"; and

ii. Capitalisation of New Zealand banks is in the top quartile of that of large international banks.

b) The Proposals would increase capitalisation of New Zealand banks on internationally comparable ratios to approximately 27%; and

c) The Proposals would result in major New Zealand banks holding more than double the capital held by large international banks.

2.3. Of note is that PwC has sought to include substantial conservatism in its modelling to account for any cumulative over or under estimates where it has made assumptions. This would suggest that the actual impact of the Proposals may well be greater than is outlined in the PwC Paper.

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[62] PricewaterhouseCoopers, above n 6.
[63] PricewaterhouseCoopers, above n 17.
[64] Reserve Bank of New Zealand, above n 18.
[65] PricewaterhouseCoopers, above n 19.
[66] PricewaterhouseCoopers, above n 6.
[67] PricewaterhouseCoopers, above n 6, at 5. PwC harmonised the calculation of capital held by New Zealand banks, and found that New Zealand banks currently hold 15.5% of CET1 capital.

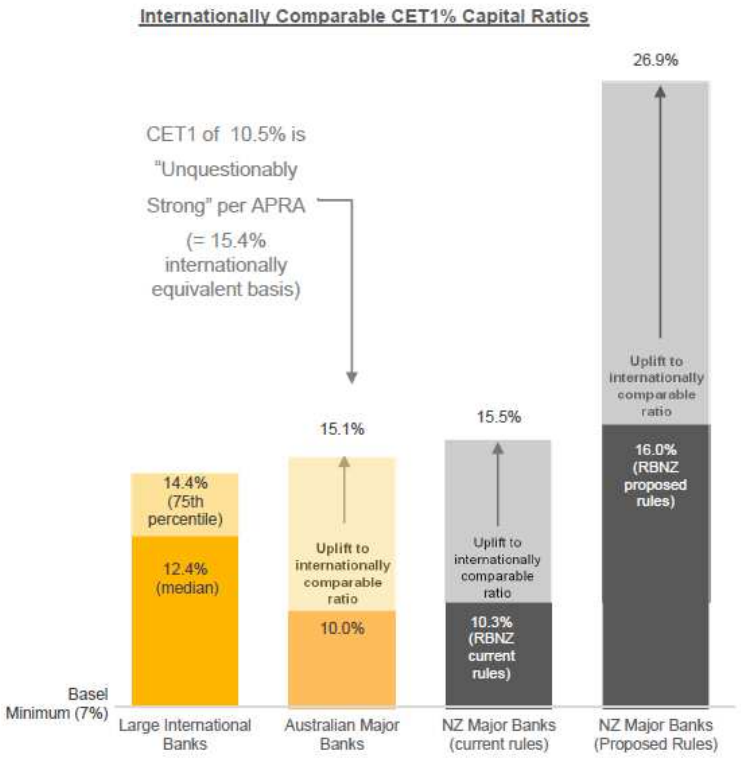
2.4. As can be seen in the chart demonstrating internationally comparable CET1 capital ratios (reproduced below as Chart 3), PwC illustrates the extent to which the level of capital proposed to be held by New Zealand banks substantially exceeds levels held by international banks.

2.5. Chart 4 below ranks the proposed CET1 capital ratios of the four large New Zealand banks against those of other major international banks, and illustrates the scale of the Proposals.

2.6. The conclusion drawn in the Proposals that a headline CET1 capital ratio of 16% (which on an internationally comparative basis would be 27%) would be "sound" is inconsistent with PwC's analysis.

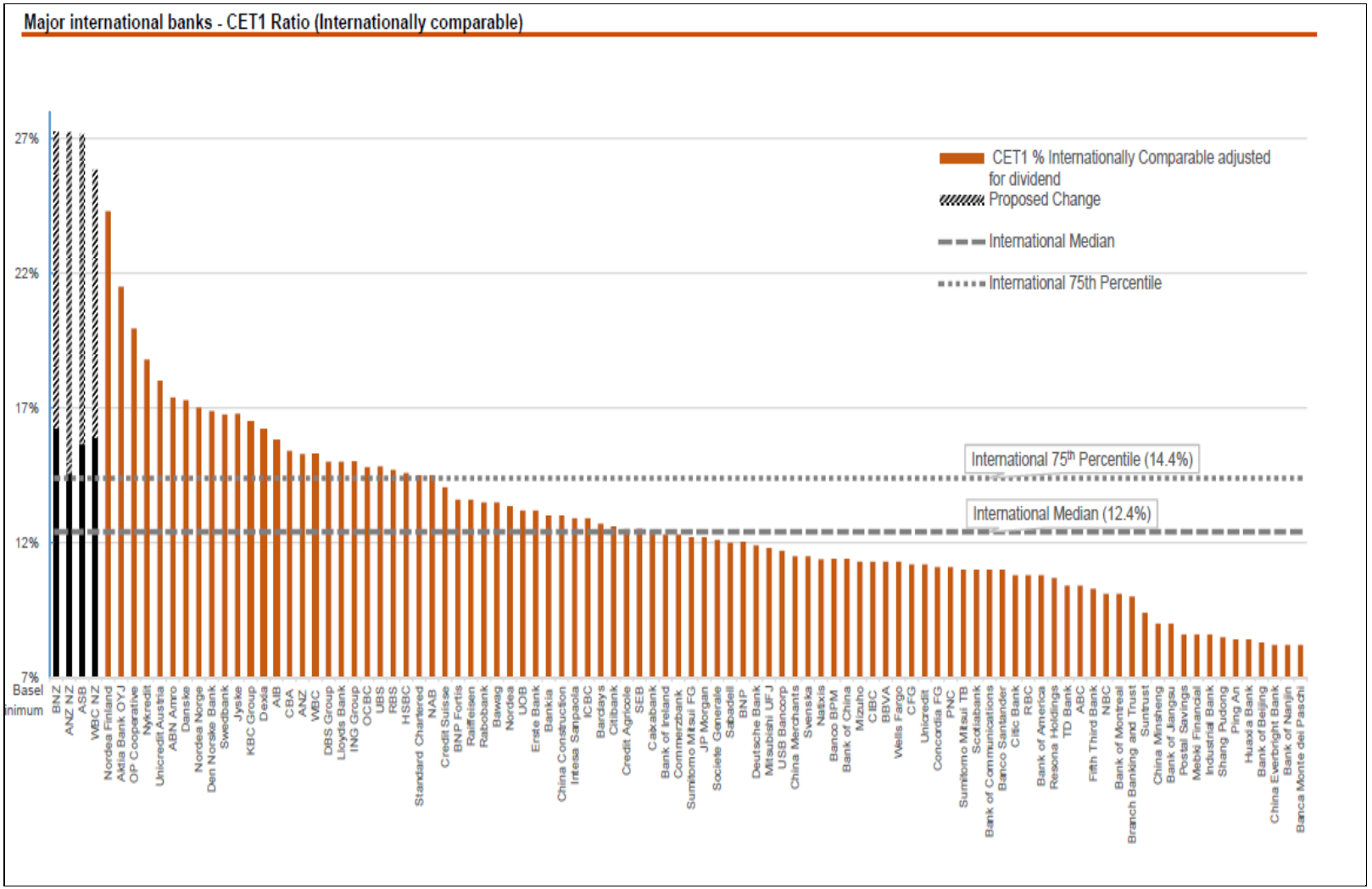
2.7. This conclusion is also inconsistent with the views of global investors and rating agencies. The most transparent view of the "soundness" of New Zealand banks over time is in the global debt markets. This represents a view formed by large and sophisticated international investors making actual investment decisions based on their understanding of the risk. New Zealand banks have enjoyed uninterrupted access to global wholesale funding markets since the GFC. Senior unsecured credit spreads for New Zealand banks are consistent with other similarly rated banks in each of the relevant markets, underlining the strong investor endorsement of New Zealand bank quality, and with the credit ratings given to the banks by the key global rating agencies.[68] The Proposals would send a contrary signal to the global debt markets on the RBNZ's view of the current soundness of New Zealand banks.

Chart 3 – internationally comparable CET1 Capital ratios



[68] It is important to note the RBNZ has previously supported and endorsed S&P credit ratings as a measure of bank cross-border valuations. See Reserve Bank of New Zealand, above n 18.

Chart 4 – Major international banks - internationally comparable CET 1 Ratios



Part E – Impact of the Proposals

1. Introduction

1.1. The Consultation Paper significantly underestimates the impact of the Proposals on banks and on the New Zealand economy. The Consultation Paper does not consider the cumulative effect of various elements of the Proposals when assessing such impacts.

1.2. In the absence of a cost-benefit analysis, it is unclear that the economic costs of implementing the proposals are justified.

2. The RBNZ has underestimated the impact of the Proposals

2.1. At the core of the Proposals is a requirement that New Zealand banks increase CET1 capital by $20bn. Our estimate of the impact of the Proposals, if implemented, is an increase of CET1 capital of $25bn across the major banks, just to meet current RWA requirements. In order to fund growth at a rate of 3%[69] over the proposed five-year transition period, WNZL would be required to raise additional CET1 capital of $6.5bn.

2.2. The quantitative analysis undertaken by the RBNZ does not adequately assess the impact of the Proposals. The studies included in the Consultation Paper have not been adjusted to account for the New Zealand environment, including the systemic conservatism in the RBNZ's capital structure.

2.3. The RBNZ concludes that the likely increase in interest rates for borrowers if the Proposals were implemented would be between 20 and 40 bps.[70] However, the basis upon which the RBNZ has reached this conclusion is unclear. Even the high end of the RBNZ's estimate of 40 bps is substantially below the impacts outlined in the analysis by independent commentators.[71]

2.4. We consider that the RBNZ has significantly underestimated the impact of the Proposals by not giving consideration to the cumulative impact of the various proposed changes within the Consultation Paper, specifically: the proposals in respect of the calculation of RWAs, the imposition of output floors, the increased scalar, and the de-recognition of AT1 capital.

2.5. The proposed D-SIB banks currently have a combined CET1 capital of approximately $28bn. When this is considered against the proposed increase in RWA as a result of the output floors and scalar changes and the removal of recognition of AT1 instruments, the effective starting point for CET1 ratio is 9.5%.

2.6. The RBNZ has stated that it expects each bank will hold a buffer above the regulatory minima.[72] Assuming this buffer is 2% (the RBNZ has stated that it expects that the buffer will be 2-3%), D-SIB banks will be required to increase their CET1 capital ratios to at least 18%, representing an increase of 8.5% (from the 9.5% above).

2.7. In applying the formula provided in the Firestone study, the RBNZ in the Background Paper calculated an impact of 11.8 bps (for a 1% move in CET 1 capital) using an MM offset of 25%.[73] This would suggest the Proposals would result in an interest rate impact of 100bps (i.e. an increase of 8.5% multiplied by an impact of 11.8bps).

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[69] Reserve Bank of New Zealand, above n 2, at 38. The RBNZ assumes a 6% growth rate. For the purposes of WNZL's submissions, this has been halved to 3%, which reflects the more dovish economic outlook.

[70] Reserve Bank of New Zealand *Reserve Bank Capital Review* (Media Briefing, 22 February 2019).

[71] UBS Securities Australia Ltd *Australian Banking Sector Update: New Zealand capital drag larger than expected* (9 April 2019).

[72] Reserve Bank of New Zealand, above n 2, at [15].

[73] Guthrie, above n 8 at 37.

2.8. Further, the Brooke and BCBS studies estimate a 1% increase in CET1 capital to increase interest rates by 10-13bps based on a MM offset of 43%, meaning that the Proposals would have an impact on interest rates of more than 100 bps.

2.9. It is estimated that a 1bps increase in interest rates will lead to a 0.1% reduction in GDP. This is consistent with the key international studies used by the RBNZ in forecasting interest rates. Despite the potential impact on the broader economy, it does not appear that detailed analysis has been undertaken in relation to interest rate impacts. The RBNZ has stated that "…the capital proposal would have a modest impact on lending rates, no greater than would be considered noise for monetary policy setting purposes".[74]

2.10. WNZL has reviewed a number of studies identified in the Consultation Paper dealing with the impact of capital changes on interest rates. These studies indicate an average increase of over 15bps for every 1% increase CET1 capital (refer to Table 5 below). Table 5 also shows the interest rate impacts for the 8.5% increase in capital as proposed (refer to paragraph 2.6 above). Assuming an 8.5% increase in capital, an average of the studies suggest the increase in interest rates would be approximately 130 bps which would equate to a drag on GDP of 1.3% of GDP annually.[75]

Table 5 – Interest rate impact for 1% change in capital

Author	Outcome	1% Change	8.5% Change
Miles etal	1pp=6bps	6	51
Firestone	1pp=6.9bps	7	60
BoE(2010)	1pp=7bps	7	60
Baker and Wurgler (2013)	10pp=60-90	7.5	64
BCBS (2010)	1pp = 13bps	13	111
King(2010)	1pp=15	15	128
Macroeconomic Assessment Group	1pp =17bps	17	145
Elliot 2009	4pp=80bps	20	170
Corbae and D'Erasmo(2014)	2pp=50bps	25	213
De Resende etal (2010)	6pp=200bps	35	298
	Average	15.25	130
	Median	14	119

2.11. The impact could well be higher depending on the MM offset in New Zealand (as discussed further in Appendix 1).The RBNZ has utilised an MM offset of 50%. We consider that the RBNZ, in doing so, has overstated the MM offset in analysing the impact on New Zealand economic activity as a consequence of rate rises that are likely to flow from the proposed increased capital requirements. Of significant relevance will be the signals from the shareholders in their submissions on the degree of MM offset they consider appropriate.

2.12. The RBNZ has stated on a number of occasions that monetary policy can be used as a foil for managing the impact of capital changes[76], presumably based on an assumption that the impact might be a small as 20bps. The Official Cash Rate (**OCR**) is currently at 1.50% and likely (based on current market swap and futures pricing) to be as low as 1.25% by next year (the proposed timing for commencing implementation of the Proposals). At such low rates, it is unlikely that the RBNZ will have the scope to address any meaningful part of the

[74] Guthrie, above n 8, at 35.

[75] Based on the assumption that a 1% rise in interest rate will lead to a 1% fall in GDP.

[76] Reserve Bank of New Zealand *Monetary Policy Statement* (February 2019).

impact by way of monetary policy initiatives. Further, any initiatives to relieve borrowers by lowering the OCR would conversely penalise savers.

2.13. WNZL notes that the Brooke study states that an increase in interest rates cannot be mitigated through the use of monetary policy: *"it is likely that monetary policy will not be able to counter the negative effect on output without pushing up inflation".*[77]

2.14. Table 6 below further demonstrates the additional costs that borrowers in New Zealand may incur as a result of the Proposals.[78]

Table 6 – Scenarios of the cost of higher mortgage payments by region and household income

	Average House Value	Additional annual borrowing cost resulting from 100bps increase	Additional annual borrowing cost as % of average household income
Auckland	$1,039,917	$6,008	6.4%
Bay of Plenty	$562,824	$3,251	4.1%
Wellington	$653,175	$3,773	4.0%
Canterbury	$474,663	$2,742	3.4%
Otago	$555,314	$3,208	4.2%

2.15. The preceding discussion also assumes that the increased capital would be available and willingly provided by the banks' shareholders, and that the cost to the economy would be the reduction in the return required by shareholders providing the additional capital. An alternative scenario exists however, in whole or in part, under which the required capital is *not* provided. The Proposals do not contain any analysis of the likelihood or effects of such a scenario. Yet statements made recently by the shareholders of the four large banks[79] indicate that a willingness to provide additional capital should not be assumed. The economic consequences could therefore be much worse than a rise in interest rates. If the large banks cannot obtain the required capital, they will be forced to reduce RWAs (by reducing lending). Such lending reductions may not easily be replaced by other market participants (most of whom are much smaller). Economists agree that such a scenario could have significant economic consequences.

3. Lack of cost-benefit analysis

3.1. The Background Papers specify that no cost-benefit analysis has been undertaken, and that the RBNZ "will carry out a full cost-benefit assessment for a Regulatory Impact Statement to help inform and describe final decisions in the review".[80] Given the impact of this economic regulation, it would seem highly unusual that a cost-benefit analysis hasn't been undertaken as part of the analysis and released for consultation in the Proposals to inform and aid submissions.[81]

3.2. While the Proposal refers to the benefit to New Zealand society, there is little analysis of the quantity of this benefit, or of the cost of the Proposals to broader society.

[77] Brooke et al, above n 21, at 20.
[78] Data sourced from QV and Statistics NZ. Assumes a 20% deposit, 30 year term and a starting mortgage rate of 4% per annum.
[79] The Australian Business Review, above n 41.
[80] Guthrie, above n 8, at 45.
[81] This can be contrasted with the approach taken by the Electricity Authority, as discussed in paragraph 2.7, Part A.

3.3. As weaknesses emerge in New Zealand and global markets, a significant increase in capital cost has the potential to materially slow the New Zealand economy as funding costs and reduction in the availability of credit restrain economic growth and productivity. In the absence of a cost-benefit analysis, it is unclear that the economic costs of implementing the proposals are justified.

3.4. Given the predominance of analysis that suggests the potential for an interest rate impact of 100 bps (or more), an independent cost-benefit analysis should have been undertaken before presentation of the Proposals. In the absence of a cost-benefit analysis and of any urgent need for change[82], with the concurrent Phase 2 Review, and the absence of any macro-prudential government direction supporting the Proposals, any decision-making in respect of the Proposals should be delayed until an independent cost-benefit analysis is completed and further informed consultation undertaken.

3.5. The disconnect seen in the recent past between the banks' and the RBNZ's assessment of the costs of implementation of its prudential policies, in particular those relating to the implementation of the RBNZ's Outsourcing Policy (BS11) demonstrates that banks are well-placed to estimate costs of regulatory change.[83] It is crucial that banks are provided the opportunity to participate in a full cost-benefit analysis of the Proposals.

[82] As discussed in PricewaterhouseCoopers, above n 6, New Zealand banks' current capitalisation levels are above the CET 1 capital ratios that the APRA considers "unquestionably strong".

[83] Interest.co.nz "RBNZ says banks can afford to pay $550 million to implement its revised outsourcing policy; Says banks' own estimates are overblown" (6 February 2017) < https://www.interest.co.nz/news/85795/rbnz-says-banks-can-afford-pay-550-million-implement-its-revised-outsourcing-policy-says >.

Part F – Alternate Proposal

1. Introduction

1.1. The Proposals, if implemented, would increase the CET1 capital ratios of New Zealand banks significantly beyond those in comparable economies and are likely to severely restrict economic growth. It is WNZL's recommendation that that the RBNZ reconsider several aspects of the Proposals to better achieve the key objectives of the Capital Review as set out below.

2. Alternate Structure

2.1. As outlined in Chart 5 below, WNZL proposes:

a) Total Capital, rather than CET1, should be the key metric (i.e. the aggregate of CET1 capital, AT1 capital and Tier 2 capital). This would provide efficiency to the bank capital structure and consistency with global bank capital standards, while still meeting the RBNZ objectives associated with well capitalised banks and consistency with depositor protection. A benefit of this approach is that the RBNZ's proposed capital ratio is met, providing creditor protection in the event of failure and, as a result, enhanced creditor confidence. A minimum total capital requirement of 16% (subject to the qualifications proposed below) would provide a more cost-efficient capital structure and a reduction in the impact of changes on borrowers and the New Zealand economy;

b) AT1 capital should qualify as a capital instrument. AT1 capital allows for immediate recapitalisation of a bank as a going concern in the event of a fall in CET1 capital. AT1 is a feature of comparable international markets and, as outlined in Part C, can be structured to address RBNZ concerns, while providing efficiency in a bank's capital structure. WNZL proposes a 3% limit on AT1 capital;

c) Tier 2 capital should continue to be included in the total capital ratio. This would provide consistency with international Total Loss Absorbing Capital (TLAC) initiatives. We propose the Tier 2 capital limit remains at 2%;

d) WNZL agrees that the majority of a bank's capital should be comprised of CET1. WNZL proposes a minimum CET1 capital requirement of 11% (in addition to this, the 2% "management buffer" would also be comprised of CET1 capital) which would continue to place New Zealand bank in a positon of strong capitalisation by global standards;

e) the total capital ratio of non-D-SIB banks should be 1% lower than D-SIB banks, to better reflect the comparable economic consequences of a failure of D-SIB bank in contrast to a non-D-SIB bank;

f) the Basel III revised standardised risk weightings should be utilised for homogeneous products (refer to Table 4 at paragraph 4.9, Part B) to "level the playing field" between IRB and standardised banks;

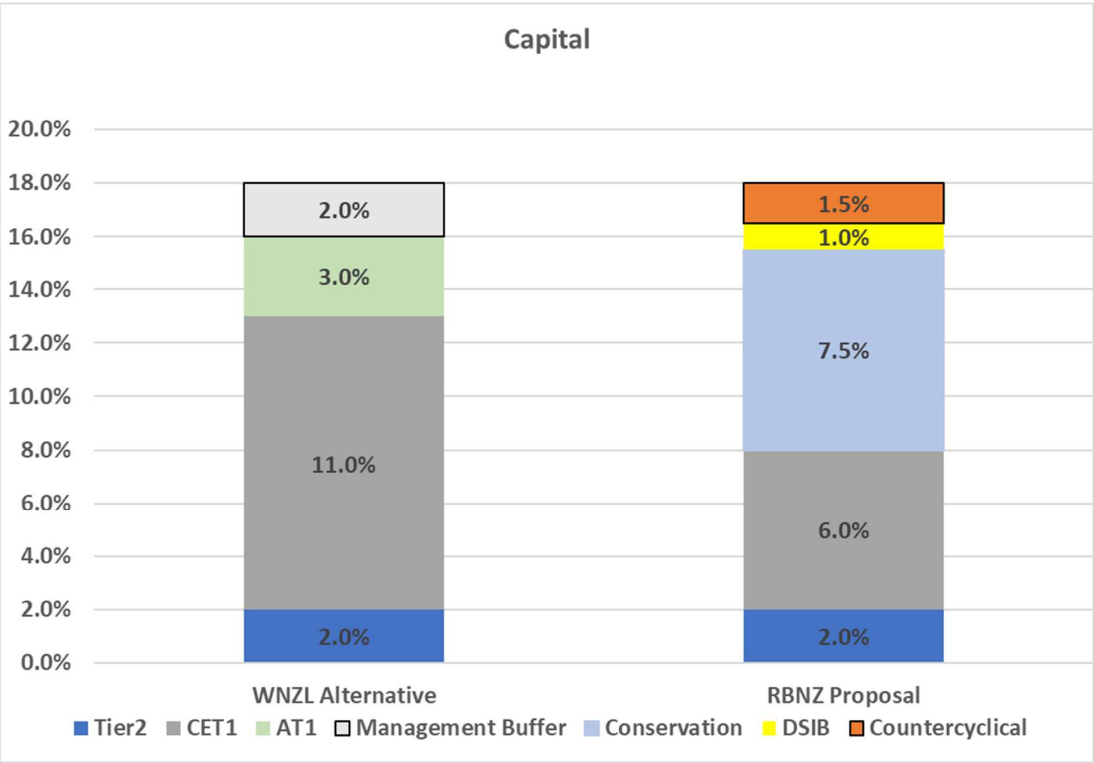
g) the output floor be introduced at a pace and at a level (72.5%) that is consistent with Basel III;

h) the scalar be removed (rather than increased from 1.06 to 1.2 as proposed). This would be consistent with Basel III recommendations and would reflect the inherent conservatism of the LGD and PD values incorporated into the proposed output floor;

i) a transition period of five years to implement the alternate proposal outlined above would allow banks to restructure current capital and organically grow additional capital to reach the regulatory minimum. WNZL estimates that the impact to the economy would also be significantly reduced; and

j) the RBNZ should review the implementation of the revised capital proposals at the conclusion of the 5 year transition period, including the economic impact and changes to international regulation. This would allow for an assessment of the impact on the New Zealand's economy and allow for observation of predicted capital regulatory change in international jurisdictions.

Chart 5 - WNZL Alternate Structure



Appendix 1 - The Modigliani-Miller (MM) offset

1. Analysis of the MM theorem and the MM offset is critical in understanding the impact of changes in capital on debt funding costs and ultimately how these costs impact broader economic growth (GDP).

2. The MM theorem argues that the average cost of capital to a firm is independent of capital structure, as any reduction in capital cost from switching to higher leverage (using lower-cost debt) is offset by an increase in the unit cost of higher-cost equity capital due to the associated rise in risk.[84] In practice, this is not the case and, at best, the observation is that this proposition only holds in a "pure" or theoretical environment.

3. Recently, empirical tests have been undertaken in the United Kingdom and the United States that observe the MM impact post-GFC. The result is an observation of relation between debt and equity mix on capital valuation. This is described as the "MM offset".

4. A high MM offset would be consistent with the theorem; lower offset suggests a lower relationship associated with the capital mix. With some level of volatility across individual organisations the United Kingdom banks suggested an average MM offset of 45%[85] while United States studies showed on offset of between 32% and 45%[86]. A recent study[87] concluded that the Australian MM offset is close to 25%.

5. In the case of New Zealand banks, it can be argued that the impact will be even lower. New Zealand major banks' carry an implied level of support from their Australian parents. This support is evident in a consistent three notch difference between each of the banks standalone credit and their "issuer" rating. In most cases, this is an uplift from A- to AA-.

6. While there is potential for an uplift in the New Zealand major banks' standalone credit rating as a result of the holding of additional capital, the issuer rating (and consequential funding costs) is driven by the parent bank's rating.

7. An increase in capital held by a bank might argue for an improvement in the standalone rating of that bank but will not, as has been announced by one rating agency[88], have any impact on the bank's issuer rating. As such, there will be no impact on wholesale debt pricing.

8. Furthermore, any theoretical improvement in a bank's risk profile resulting from an increase in the capital held would in practice (in the case of New Zealand's large Australian-owned banks) be lost at the shareholder level, given that each of these banks only have one shareholder. Any MM offset in these banks could only be realised by the bank's shareholder to the extent that its own shares or debt were seen by the market as less risky, but given that its 100% ownership of the subsidiary would be unchanged, this could not occur.

9. The impact of the holding of additional capital on New Zealand banks credit ratings was further undermined by a recent statement by Fitch Ratings[89] that it may consider a downgrade for New Zealand major banks if the Proposals would make parental support too onerous for the parent bank.

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[84] Franco Modigliani and Merton H Miller *The cost of capital, corporation finance and the theory of investment*' (The American Economic Review, 48(3), 1958) at 261-297.

[85] Brooke et al, above n 21.

[86] Cline, above n 22.

[87] James R Cummings and Linh Nguyen *Impact of the Basel III capital reforms on bank funding costs: Australian evidence* (March 2019).

[88] Interest.co.nz "S&P sees stand-alone credit profile upside for big 4 NZ banks & their Aussie parents from RBNZ capital plans" (26 February 2019) <https://www.interest.co.nz/banking/98322/sp-says-stand-alone-credit-profiles-nzs-big-4-banks-their-aussie-parents-could>.

[89] Fitch Ratings "Fitch Affirms New Zealand's Four Major Banks at 'AA-'" (3 April 2019) < https://www.fitchratings.com/site/pr/10068380>.

10. The bulk of New Zealand bank debt is derived from customer deposits. New Zealand retail customers have shown no capacity or appetite to differentiate pricing between the New Zealand banks, despite regional banks having significantly inferior credit ratings. New Zealand banks compete on an even playing field for retail deposits despite credit rating differentials and, as a result, the MM offset for retail deposits would appear to be almost nil.

Appendix 2 - The operation of Hybrids

1. Hybrid bank securities in their simplest form are an evolution of preference shares; in other words, instruments that combine features of debt and equity. Preference shares have been in issuance since the 19th century and hybrid bank securities have been issued since the 1990s.

2. A Hybrid is a debt security that will convert into an equity security should a pre-specified trigger event occur. A trigger event can be issuer bank-specific, systemic, or both, and are defined to ensure automatic and inviolable conversion from debt to equity. Such trigger events, and the subsequent conversion rate upon the trigger event, are specified in the relevant security documentation.

3. In Australia and New Zealand, Hybrids have been issued as perpetual instruments, with (time-based) call options consistent with a fixed term capital instrument. It is this call feature that creates a viable market for fixed interest investors to purchase Hybrids.

4. Typically, Hybrid redemption (or call) conditions require regulatory approval (or non-objection) and are subject to a condition that a bank issuer's capital levels after redemption remain consistent with the same (or higher) capital minima as prior to the coupon (interest) payments.

5. In New Zealand, under existing RBNZ rules, any redemption of Hybrids is subject to approval from the RBNZ. The write-off mechanism within such preference shares is based on conversion into equity (for non-mutualised banks). Conversion is defined with two elements; the trigger and the conversion rate.

6. The absence of a call date or redemption right precludes fixed income managers from investing in such instruments, as a typical fixed income investment mandate is unlikely to permit the purchase of non-redeemable products. It is likely that such products will be significantly less attractive to investors (as there will be no certainty of exit).

7. Without a time-based call-option, the open ended maturity of these instruments would typically only interest equity investors, and as such there would be no material interest in Australasia for such securities.

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